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Rocket engine development contracts awarded

by Ranney Adams, Propulsion Directorate

EDWARDS AIR FORCE BASE, Calif. — Air Force contracts have been awarded for the critical first development steps of a new upper-stage rocket engine.

Aerojet and Northrop Grumman were awarded the contracts as part of the Air Force Research Laboratory's Upper Stage Engine Technology (USET) program managed by 1st Lt. Dan Wright of AFRL's Propulsion Directorate at its Edwards Research Site.

Northrop Grumman will create software tools to be used for the design of a closed expander cycle upper stage rocket engine that will be propelled with liquid oxygen and liquid hydrogen. Their contract award is valued at \$2.58 million.

Aerojet will commence on a three-phase program to provide a similar upper-stage engine concept design, its computational tools, and conclude the program with a hardware and computational tool validation. Their contract award is worth \$1.77 million.

The USET program is part of an effort to meet the goals of the national Integrated High Payoff Rocket Propulsion Technology (IHDRPT) program. The results of the new contracts are expected to exceed IHDRPT Phase 1 goals for the 35-45,000 pounds of thrust class engines. The IHDRPT program involves all military services, NASA, and the rocket propulsion industry working to double the nation's rocket and missile propulsion capability while lowering manufacturing and maintenance costs. The program is achieved with phased goals that culminate with technology demonstrations.

Nearly every U.S. rocket propelled missile, launch vehicle, booster, or satellite system has been enabled by technology managed, researched, developed, or tested by Propulsion Directorate personnel and the 65 square miles of facilities at the Air Force Research Lab's Edwards Research Site. @